

Patent Claims:

1       1. Apparatus for the laboratory testing of enclosed partial  
2       cabins as resting room or space for the installation in  
3       commercial aircraft for an acoustic design and testing,  
4       characterized in that the partial cabin (1) is arranged via  
5       at least one vibration generator (4) for the simulation of  
6       an excitation structure-borne noise in the area of  
7       connection elements (2) to the fuselage structure, and  
8       elements (5) for the airborne noise excitation are  
9       allocated to the partial cabin (1), whereby the vibration  
10      generators (4) for the structure-borne noise and the  
11      elements (5) for the airborne noise excitation are  
12      adjustable via control and regulating devices (6), and the  
13      signals are generatable via a computer unit (7) with an  
14      input data file (8) of knowledge-based data, as well as, if  
15      applicable, by extrapolation of the acoustic values at the  
16      installation location and of the design of the partial  
17      cabin (1).

1       2. Apparatus according to claim 1, characterized in that the  
2       input data file (8) of knowledge-based data contains at  
3       least the proportions of the various different noise  
4       transmissions from analyses of existing installed  
5       acoustically-designed partial cabins (1) as well as of the  
6       measured values of the present subject relationships in the  
7       aircraft with respect to installation locations.

1       3. Apparatus according to claim 1 or 2, characterized in that  
2       the vibration generator (4) of the partial cabin (1) are  
3       embodied as piezo vibration generator.

1       4. Apparatus according to one of the claims 1 to 3,  
2       characterized in that an allocated loudspeaker arrangement  
3       (5) is controlledly driveable or actuatable for the  
4       airborne noise excitation.

1       5. Apparatus according to one of the claims 1 to 3,  
2       characterized in that reverberation chambers are arranged  
3       directly on the sidewalls of the partial cabin (1) for the  
4       airborne noise excitation.